

### ABSTRACT

Apparatus, and an associated method, for communicating data pursuant to a frequency division multiplexing scheme that takes into account channel conditions on the communication channel upon which the data is communicated. Sub-bands are defined in which adjacent ones of the sub-bands overlap upon one another. When data parts of data communicated upon separate ones of the sub-bands are received at a receiving station, each sub-band is filtered by a first filter to pass signal parts within frequencies within each of the first sub-bands. Over sampling is performed upon each of the past signal parts at the separate sub-bands to frequency-shift interfering component parts thereof. Then, additional band pass filtering is performed to reject the interfering signal component portions. Subsequent processing is thereafter performed upon the data components.